Abstract

Objective: To explore the experiences of mentoring higher- grade trainees amongst senior orthodontic trainers at Bristol Dental School.

Design: Qualitative Study using interpretive methodology

Setting: University of Bristol Dental School

Participants: 6 consultant orthodontists, 5 of whom also have district general hospital experience

Methods: One- to -one semi-structured interviews were undertaken on a purposeful sample of orthodontic trainers. The interviews were audio- recorded, transcribed verbatim and Thematic Analysis was used to analyse the data.

Results: Four main themes emerged from the data were. They were: How to mentor, Mentor-mentee pairings, Resources and Success and pitfalls of mentoring.

Conclusions: This study revealed that senior trainers have a good understanding of the qualities of a mentor and appreciate the roles which mentors need to perform. They are altruistic in their motives, but would benefit from more time, organisational support and training to help them perform their duties better

Introduction

The aim of Postgraduate Medical Education and Training in the UK has always been to develop high quality, skilled and caring professionals at the point of completion of a programme of training. The Clinical Governance framework and the drive for improving the quality of patient care places a responsibility on NHS organisations to encourage staff retention by motivating and developing staff, as well as the provision of good working conditions. In this way, it is hoped to establish an environment in which excellence in clinical care will flourish (Scally and Donaldson 1998).

In the UK orthodontic training follows a well mapped route. The certificate of completion of specialist training is awarded after 3 years of successful post-graduate education (ST1-ST3), but to become a consultant a further 2 years of training (ST4-ST5) is required.

The changing nature of healthcare, including working time directives, risk management, accountability to patients and commissioners has challenged traditional models of learning, where opportunities for protracted learning are far more limited with increasing constraints on time and resources (www.faculty.londondeanery.ac.uk/e-learning/facilitating-learning-in-the-workplace/challenges-and-opportunities)

Despite all these challenges, the main reason the workplace remains central to teaching is that we are training students to be skilled and competent healthcare professionals. Professionalism is not only about acquiring knowledge and skills, but also about professional socialisation and the development of a professional identity (i.e. behaving as a professional) (Mann 2011). Mentoring plays a key role in the development of professionalism and enriches the workplace for both experienced and novice practitioners.

Mentorship has also been described as a voluntary and reciprocal interpersonal relationship in which an individual with acknowledged expertise shares his or her experience and learning with another (less experienced) person (Friedman et al 2004).
Relationships between mentors and senior trainees in orthodontics have not been investigated previously, and the current study aimed to explore this from the mentor's perspective **at a UK teaching unit, comprising a dental school and associated district**

general hospitals in the South West of England. In this region of the UK, senior trainees (ST4-ST5) spend at least 50-60% of their time at Bristol Dental School and the remainder at their designated district general hospital. Their training is coordinated and supported by a Training Programme Director (TPD) who is accountable to the Regional Postgraduate Dental Dean. Each trainee has an appointed Educational Supervisor who is responsible for overseeing their educational progress, carrying out their progress reviews and providing regular feedback and reports on their progress to the TPD. Day to day training, supervision and teaching is provided by Clinical Supervisors, some of who may also be will be Educational supervisors, and all of which are Consultants.

Mentorship: Definition and Characteristics

Before exploring mentoring, it is important to distinguish between supervision, coaching and mentoring as they have different origins, outcomes and ideals. Supervision is defined as an exchange between practising professionals to enable the development of professional skills.

Within the context of primary care Burton and Launer (2003) define clinical supervision as facilitated learning in relation to live practical issues. Coaching also has a performance focus, with a specific agenda and is therefore very often task oriented (Lovell 2018). By comparison, mentoring is centered on the individual with a more holistic focus, which includes personal growth and learning (Macafee & Garvey 2010). The mentor is the facilitator without an agenda.

Early studies defined mentoring not in terms of formal roles, but in terms of the character of the relationship and its functions. A mentor may be a guide by welcoming the trainee into a new occupation or social world and acquainting them with its values and customs (Levinson et.al. 1978). Kram (1983) identified two primary domains of the function of a mentor, the career and the psychosocial. Career functions are typically related to career development and include aspects of mentorship that enhance “learning the ropes” and preparing for advancement. They encompass activities such as sponsorship, exposure, visibility and

protection, as well as provision of challenging assignments and transmission of applied professional ethics (Kitchener 1992; Kram 1985). Psychosocial functions such as role modelling and counselling enhance the trainee's sense of competence, identity and effectiveness. This distinction in mentor functions has received considerable theoretical and empirical support (Kram 1985; Levinson et al. 1978; Swerdlick & Bardon 1988; Wilde & Schau 1991). Skilful mentors seamlessly blend these functions in work with trainees (Clark et al. 2000; Kram 1985).

More recent research on mentorship in the field of psychology has tried to contain this relationship within a single boundary in which a more experienced (usually older) faculty member or professional acts as a guide, role model, teacher and sponsor of a less experienced (usually younger) graduate student or junior professional. A mentor provides the protégé with knowledge, advice, challenge, and counsel. They would support the protégé's pursuit of becoming a full member of a profession (Clark et al. 2000; Johnson et al. 2000). The definition proposed by Bozeman & Feeney (2007) describes mentorship as a process for the informal transmission of knowledge, social capital and psychosocial support, which are perceived by the recipient as relevant to their work, career or professional development. Mentoring entails informal communication, usually face-to-face and during a sustained period between a person who is perceived to have greater relevant knowledge, wisdom or experience (the mentor), and a person who is perceived to have less (the protégé). This comprehensive explanation of the nature of mentorship is helpful for several reasons. Firstly, it provides a boundary for mentoring and separates mentoring from related varieties of knowledge transmission such as training, socialisation and friendship. Certainly, the mentoring relationship often goes beyond the role of professional advisor to focus on both the personal and professional growth of the individual and undoubtedly the socioemotional support provided by the mentor is desirable and necessary to strengthen the relationship. Secondly, this definition helps the understanding of the hierarchy of relationships within mentoring, in as far as the roles of the mentor and protégé can be interchangeable if they are in entirely different domains and there is unequal knowledge. Thirdly the informality of the relationship is of real- world importance and is reflective of the nature of our relationships with our trainees. As Friedman et al. (2004) explain, the nature

of mentoring relationships is typically long term and based on trust and mutual respect, which not only benefits the mentee, but also the mentor and the organisation.

Rewards of Mentorship

Kram (1983) studied 18 mentoring relationships in a large public utility organisation in the US as they were occurring and described mentoring as a process comprising four (not entirely distinct) phases:

- Initiation
- Cultivation
- Separation
- Redefinition

The relationship is established during the initiation phase and is followed by the cultivation phase where the full functions of the relationship become apparent. During the third, separation phase, the established nature of the relationship is altered, either through personal or organisational changes, before reaching the final, redefinition phase. In this last phase a new form of relationship emerges, or the relationship comes to an end. The relationship changes from mentorship to a collegial or peer-like relationship. Although not conducted in a health setting, it is a convenient way of examining and breaking down the mentor-mentee relationship. It allows reflection on each stage and is perhaps not so dissimilar to the mentoring relationships that we as orthodontists have with our trainees. For a highly motivated mentee, this is an opportunity for enhanced networking. In the case of academic trainees, it may include guidance towards particular research opportunities or career pathways, whereas for students in difficulty it might mean early identification of potential problems and being offered guidance by a trusted person (Kurre et al. 2012).

Challenges of mentorship

As mentoring is a personal and professional relationship, it can be subjected to personality clashes and mismatch between the mentor and mentee's goals. This interpersonal aspect of the mentoring relationship is critical and can be especially problematic in programs that assign mentoring pairs. The study by Jackson et al. (2003) into mentoring in academic medicine found that participants repeatedly emphasized the importance of ''chemistry'' in the relationship. Whilst this study had a few limitations, such as small sample size and selection bias, nevertheless the in-depth nature of the interviews revealed evidence of the importance of compatibility in mentoring relationships. From a mentor's perspective it is much easier to form a positive relationship with a trainee who is willing to learn, is ambitious and conscientious. Interactions with such mentees are undoubtedly more rewarding. Perhaps on a more selfish level, Schrubbe (2003) is right to assert that mentors want to associate with rising stars, so that some of the stardust will brush off on them. In an ideal world all trainees will have such qualities and are competent, motivated and keen to learn. However, as Hendricson and Kleffner (2002) state, those with attitudinal issues can be very frustrating to teach and the same can perhaps be applied to mentoring. They suggest that there are three types of behavioural challenges which can impede learning: acute defensiveness, which hinders student-teacher communication; a lack of personal motivation; and a know-it-all attitude of a student, who has a high estimation of their own ability, sometimes deserved and sometimes not.

Another consideration is whether gender has any influence on the mentoring relationship? Whilst there has been a large increase in the number of female students at UK dental schools, this change in gender distribution has not been matched at the level of senior academic leaders and the more senior the level, the greater the imbalance (Whelton and Wardman 2015). As we were unable to find any articles that examined the role of gender in mentoring relationships in any dental fields, we can only draw on findings from medical and other professional groups. The most cited paper in this field is the systematic review of mentoring in medicine by Sambunjack et al. (2006). This paper highlights the inadequacies of many of the previous studies on mentoring including: small scale surveys, no comparison group (Mentored vs Non- mentored trainees), little information on the sampling criteria or the nature of mentoring (formal or informal). From the papers deemed suitable for inclusion there was a perception that women had more difficulty finding mentors. Women also

identified the lack of a mentor as one of the two most negative experiences they had in their careers. When looking at gender similarity and mentoring in professions outside healthcare, same-gender mentor–protégé pairings generally possess higher levels of shared experience and interpersonal comfort than cross gender mentoring relationships (Sosik and Godshalk 2005).

Mentoring in progress

Finding a mentoring relationship that works for both parties requires patience and perseverance (Jackson et al. 2003). As we reflect upon the mentoring which we provide for our trainees, it is evident that our style and approach differs greatly depending upon the mentee's stage of training. There is a distinct shift of stance from the prescriptive and informative models, to the cathartic and catalytic (Heron 2002). In the early years as trainers we provide information, challenge and suggest ideas and are probably more of a coach than a mentor, which is perhaps hardly surprising. Initially, the trainee maybe tentative and unsure of their position in our community of practice, are very much at its periphery, and maybe uncertain as to the precise relationship and discourse. They may only be able to participate in and undertake less complex procedures, and so as trainers we may implicitly take over in a situation where we feel order is breaking down and where the trainee appears to be out of their depth. Heron describes this as a mode of catalytic degeneration and benevolent takeover. In later years we may instead help to draw out ideas and solutions as a mentor, rather than as a coach to our trainees.

Research Methodology

Currently there is limited information on mentoring, especially from the mentor's perspective in dentistry, and in orthodontics in particular. At a time where secondary care orthodontic services are constrained and recruitment to senior training and consultant grades has become increasingly difficult, mentoring might not only play an important role in invigorating and enthusing our trainees to remain in the profession, but also enrich our learning environments.

The conceptual framework for this study is social constructivism as we wanted to explore informal learning that developed in the workplace. Professional learning, self- awareness, awareness of others and contextualisation of the principles of clinical care allow the individual to develop a sense of identity within a community of practice (COP). Wenger (1998) defines COP as groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. Dornan et al. (2006) use the Social theory of learning (i.e. social constructivism) to explain that expertise resides within COP and that social engagement is essential to the learning process. Learners absorb and are absorbed into the workplace culture and are challenged to re- evaluate their values, beliefs and attitudes (Yonke & Lemon 1993).

In order to explore mentoring as sociocultural learning this study is grounded in interpretivism, which is founded on the theoretical belief that realities are multiple, constructed and holistic. This study is fundamentally concerned with understanding the respondents and in doing so seeks to understand their definition of a situation (Schwandt 1994). In this research we were interested in mentors' feelings towards mentoring, the problems they might face and the rewards they may gain from a social interaction (i.e. mentoring) in the natural setting of that social phenomena, i.e. the orthodontic workplace.

The objectives of this qualitative study were therefore to determine:

- What does mentoring mean to trainers?
- What are the trainers' individual experiences of mentoring?
- How different are trainer's approaches to mentoring?
- What can be learnt from other trainers to enrich the mentoring relationship?
- What are the rewards and pitfalls of mentoring?
- How is mentoring supported by the wider organisation?

Data collection

Semi structured interviews were conducted in a quiet area at XXXX Dental Hospital away from clinical activities and were recorded on a password protected recorder. This setting

was chosen as a matter of convenience for the interviewees, who were all based at XXXX hospital and as such was economical on time and travel expenses. It was also a familiar and safe setting for the interviewer and participants, hopefully putting them at ease and empowering them to discuss sensitive issues.

The research objectives informed the initial interview questions, but some questions were amended and evolved to allow the participants to fully express their feelings and emotions on mentoring.

Participants

The sample size (number of participants) for this study was influenced by both theoretical and practical considerations. As suggested by Robinson (2014), the interview research sample size was sufficiently small for individual voices to be heard in the study and for intensive analysis of each case to be conducted. It was there therefore decided to interview six (3 male and 3 female) Consultant Orthodontists at Bristol Hospital, each with a minimum experience of 10 years at consultant level. They had all been involved with ST4-ST5 training. All were clinical supervisors, four had been educational supervisors and three had been training programme directors. This gender balance helps explore gender issues in relation to mentoring. This group of interviewees represent purposeful and naturalistic sampling (Marshall 1996). The rationale for this type of sampling was that it was judged to be the most practical, realistic and time efficient. We were particularly interested in those individuals who were not only knowledgeable about this subject, but who were also willing to take part and able to communicate their thoughts in an articulate way. From our knowledge of nationwide orthodontic training, we also concluded that the participants were a good representation of trainers in teaching and training institutes across the country, therefore improving the applicability of the data to other mentoring scenarios.

Ethical approval

This study was granted Ethical approval by the University of Bristol of Medicine and Dentistry Research Ethics committee.

Although it was judged that this topic was not sensitive, and was unlikely to cause harm to the participants, all subjects were provided with a copy of the study information sheet outlining the study, its aims and objectives. Signed written consent was obtained prior to the interviews and they were free to withdraw their consent at any time. The transcripts of the interviews were anonymised.

Transcription and analysis

The interviews were recorded using a password protected device and transcribed verbatim by the principal investigator (XX) from the audio data.

As recommended by Braun and Clarke (2006), Thematic Analysis was used to identify patterns and themes within the data. This is a flexible six-phase approach to data analysis without it being associated with any single theoretical basis. Familiarity with the data allows initial codes to be generated. This is an inductive process by going through the transcripts line by line and recording the first impressions of each data set, before generating the initial codes. It was decided not to use a computer programme as the data sets were manageable and this method allows for greater intimacy with the data and reflection. Once the initial codes were generated, they were organised into broad themes which captured significant or interesting data relevant to our research. Themes were created without trying to fit them into a pre-existing coding frame in order to produce a rich description of the overall data. The themes were reviewed and condensed into more meaningful themes in the context of the entire data set. We were keen to make sure that there was no overlap between the themes and if there was an overlap they were amalgamated into one.

Results

The four main themes which emerged were from the data were: How to Mentor, Mentor-Mentee Pairings, Resources and Success, and Pitfalls of Mentoring

Theme 1: How to Mentor

The participants valued certain personal attributes and skills which a good mentor should possess.

Knowledge and good listening were valued by all the interviewees.

"*I think to listen and truly hear what the person is saying is very important, because at times we are prone to putting our own take on the subject*" (Participant no. 3)

"*They (mentees) need to be listened to and valued*" (Participant no. 4)

As far as personal attributes were concerned, being inspirational, dynamic, friendly, altruistic and approachable were uniformly agreed upon.

"*Mentors should be approachable and instil morale*" (Participant no. 2)

There was good agreement amongst all participants that a mentor should be a non-judgemental supporter who helps the trainees to come to decisions for themselves.

*"A mentor is a non-judgmental support … a bit of a sounding board …but then being able to offer advice and perhaps point somebody in the right direction" (*Participant no. 1)

"*I see mentoring more as a guiding option, so you try and help the individual come to their decision on what is right for them ….. you support and ask probing questions* (Participant no. 3)

"*Mentoring is about helping them (mentees) and guiding them with career progression and helping them realise their own potential*" (Participant no. 6)

"*At ST4-5 level the role of the mentor is getting the trainee to think what they need to do to sort their own training and to sort out their own career and future…..It's not about telling them what to do… it's getting them to explore their own options about what might suit them best, ….. what they want to get out of things, because that's different for each trainee*" (Participant no. 5)

One of the participants stated that mentors should go beyond the role of facilitator to become inspirational. They believed that lack of interest in the trainee can have negative consequences for the trainee.

"*I liked being a dentist, but my first trainer went into the top office at lunchtimes and shut his eyes and I thought this cannot be the future which led me to leave that job……When they look to you as a person to guide their career and see you enjoying your job, it's really important. I think if you don't enjoy your job you can't really mentor anybody properly because all you are mentoring them is in a negative way and mentoring should be a positive experience*" (Participant no: 2)

The responses indicate that the mentor-mentee relationship at this senior level of training is not a didactic relationship, but rather a facilitative approach by allowing the trainee the space and time to find the solutions themselves. It was widely believed by all the participants that mentors guide rather than tell. They probe and challenge to stretch the capacity of the trainees. They do all this by listening, questioning and encouraging the sense of ownership of problems by the trainee.

The trainers agreed that effective mentoring focuses on the skills and qualities required for career success rather than a judgement of personality and character of the mentee.

Theme 2: Mentor-Mentee Pairings

The interviewees were divided on the formality of the mentor-mentee relationship. Most of the respondents were in favour of an informal, coffee room type of conversation, ideally away from the workplace. They thought that formality might imply that the trainee was in difficulty and would become yet another tick box exercise for them, rather than a voluntary relationship based on trust, confidentiality and respect.

"*I must say I do try and sit down with the trainees and talk and it's not for any specific reason, but by just keeping talking to them often problems will come up and you can point then in the right direction, so it doesn't feel like a formal process to me"*(Participant no. 1)

"I think perhaps it shouldn't be forced upon people, saying this is going to be your mentor, because it almost gives that impression that they have a problem" (Participant no. 1)

*"Mentoring should be entered into by trainees on an optional basis, because unless they are going to opt in and say I want this, and I need that, I don't think it's the avenue to go down, because it's seen as just another tick box" (*Participant no: 5)

One of the participants who favoured informal mentoring also believed that professional boundaries need to be considered where the personal and professional problems of the trainees can be exhausting for the mentor.

"…….I think there's actually probably a way of putting boundaries to it otherwise, you know, how far does it go? How far do you get involved? Some people come with many problems" (Participant no: 3)

Two consultants who were in favour of a more formal pairing of mentors and mentees gave a couple of reasons for this. Firstly, they thought that the trainees would value a named person who they can go to for a chat and secondly, formality would force the mentors to find time in their busy schedules for conversations on a more regular basis.

"*Being paired up with people is great as it gives that person i.e. the trainee somewhere to start"* (Participant no: 2)

"*I am very much in favour of the formal approach to mentoring……I think we need to make it less adhoc, we need to say right we are going to meet very two weeks to discuss how you are progressing and things like that"* (Participant no: 6)

Nevertheless, there was a consensus even among those who preferred a more formal arrangement of mentoring that the actual process of sitting in a room and discussing matters should always be a relatively informal.

"*It's a case of people coming to see you, sit down and have a chat*" (Participant no: 1)

Some participants expressed concern over potential conflicts of interest and felt a mentor should not also be the appraiser or be involved in assessing formal progression.

"*Strictly speaking an educational supervisor is to sign you off as being competent to go ahead……. it's the educational supervisor and their report that says whether you should go ahead or not and actually I do think that is in conflict with being a mentor…….The mentor is someone you should go to who doesn't have that ulterior motive …. I think you would be a much better mentor if you are not the person doing that educational supervisor role*" (Participant no: 5)

"*I don't know how you could be someone's educational supervisor and mentor*" (Participant no: 3)

The next sub-theme was the chemistry of the mentor-mentee relationship, which the interviewees identified but were less able to define. Some remarked that to invest time and

energy in the relationship it was important for the mentor and mentee to connect at some level.

"If you generally don't get on, then that's probably not a very productive relationship" (Participant no: 3)

This connection can be through common interests, career ambitions and similarities in personality, or work /life balance. An example was given by one of the interviewees whereby in their opinion certain life events, such as being a mother and juggling work with home life, can potentially create a stronger bond between female mentors and mentees, but in general gender did not seem to influence the need for mentoring, or the quality of mentorship provided by the trainers.

"*There are people you would invest more in than others. I think having similar personality traits that you recognise in yourself is important and also things such as work ethic*" (Participant no: 6)

"*I do think there has got to be some connection between you and the mentee, because otherwise, either side will not invest the time and energy in that relationship*" (Participant no: 5)

When the role of chemistry was discussed further, some of the trainers believed that a mentor in the same discipline would be more beneficial, as they would understand the needs of the trainee better and would be more empathetic to their concerns.

"*I think it's easier if you've got a trainee or a mentor who's in the same discipline as you. I think it's more difficult if you've got a problem you want to talk about, you don't want to explain what you do and why you do it"* (Participant no: 1)

Others believed that most issues which may arise in training are generic and not speciality specific, and therefore saw no necessity for mentors and mentees to be in the same speciality. In fact, being in different specialities was mentioned as bringing a different perspective, providing richness to that relationship and removing the issues around conflict of interest.

"*I think it's invaluable to mentor people who are not in my speciality*" (Participant no: 3)

"*Sometimes they (trainees) need assistance from someone outside the speciality, from someone they didn't report to on a daily basis"* (Participant no: 4)

All of the interviewees believed that mentees need to find the right mentor for themselves and recognised that the relationship flourished in a trusting and respectful environment, but it also required time and connection between the individuals at some level in order to invest the time and energy. It was important to have a positive connection on some level with each other be it interests, ambitions and attitudes.

Theme 3: Resources

Mentoring was a tacit activity, often slotted in between clinics or other professional work. Seldom was mentoring given adequate time and attention to flourish and this was believed to be because of the rising demands on the trainers in the workplace as well as manpower constraints. All trainers believed that the nature of job plans meant that they were not always available when the trainees needed them. Therefore, most mentoring activity was adhoc and the trainers felt that they would serve the needs of their trainees better if given more time.

"I think time wise there is always a pressure….I think sometimes you don't have the opportunity to give the time to people" (Participant no: 2)

"I suppose if the point of mentoring is that you are accessible, and they can come and chat, because of the nature of our jobs, we aren't always accessible" (Participant no: 4)

Problems of manpower means that the pool of mentors in a small speciality such as orthodontics maybe limited and as such the mentees may have to look outside the speciality for mentoring, or an individual mentor may have to take up the mantle for more than one trainee.

"…whether there would be enough people for everyone to have an educational supervisor, an academic supervisor and mentor is doubtful. Having said that it could be that you become a mentor for a whole group" (Participant no:1)

Interestingly, hardly any of the trainers had any formal training in how to become mentors to trainees even though three had been training programme directors at some point in their careers. Most mentioned that they would have appreciated training and support to become effective mentors.

"*I've never been formally trained to be a mentor, I think most of us haven't*" (Participant no:1)

"*No, I haven't had any training, given the situation I'm in and the roles I take on having training can only be an advantage can't it?"* (Participant no: 4)

So far it is clear that the trainers have a good understanding of the skills and attributes required of them as well as the functions they need to undertake to fulfil their commitments to mentoring. Only a few trainers preferred a more formal pairing of mentors and mentees, but in all cases the trainers agreed that the mentoring process had to be informal. Conflicts of interest were recognised, and examples were provided by the trainers. All trainers agreed that a personal connection between the mentor and mentee was an important ingredient for a good relationship. Pressures of time, workload and job plan were mentioned by all as a hinderance to a good relationship. All respondents would find training useful.

Theme 4: Successes and Pitfalls of Mentoring

The analysis of the interviews revealed that the benefits and gains of mentoring as perceived by the trainers outweighed the time, effort and commitment required to develop the relationship. The emotional gains were satisfaction in seeing trainees develop as well as improving teamwork.

"You get career satisfaction for having helped trainees" (Participant no. 2)

"There's a certain element of satisfaction in seeing people develop and the satisfaction in guiding them or helping them" (Participant no. 5)

They all described it as the nice part of the job. They described their job satisfaction in terms of witnessing their trainees' progress and positive feedback that they had received from them. In the context of the environment, the respondents described that it was one of the reasons that they decided to practice in the hospital setting rather than in private practices despite other financial gains. All trainers agreed that mentoring is a gain-gain situation for both the mentor and the mentees.

"I think that's invaluable. I have learnt from my mentees as much as I hope they've learnt from me… I hope I have been able to support them" (Participant no. 3)

If there are any pitfalls in mentoring it is more around the process and conflicts of interest rather than the relationship which was deemed to be enriching to both parties.

"I think where we are in this hospital if you want to do mentoring, you've got all the opportunities to do that, sure we could do maybe more formal training" (Participant no. 2)

"In this job and you get the variety of meeting different people, working as a team and therefore you get the opportunity to mentor" (Participant no. 2)

"*There is not enough time for mentoring… most people do it outside of their job plan… they managing to fit it in a very adhoc way….. It might be slightly easier for academic colleagues easier because your job time isn't so prescriptively prescribed say like an NHS consultant*" (Participant no. 5)

"*It's often a coffee room discussion…. There isn't a real allocated time for it*" (Participant no. 6)

Discussion

From the interviews it became clear that effective mentoring was dependent on certain essential qualities of the mentor. Active listening is an essential skill for a good mentor. This means truly listening with the intent to understand the other person's perspective, rather than listening with the intention of formulating one's own response (McBurney 2015). One of the trainers almost exactly echoed these words. Other personal characteristics and skills which were highly valued by all interviewees were; being inspirational, dynamic, friendly and altruistic, which then lends to the mentor becoming approachable and easy to communicate with. The trainees rely on mentors to be a guide, confidant and source of support during a time of personal and professional transition (Levinson et al. 1978) and this was unanimously endorsed by the consultants interviewed. They characterised their role as

a non-judgmental support, someone for the trainees to talk to about their problems and a reassuring hand on the shoulder. Trainers did not see mentoring as a didactic interaction, but believed it was an open and facilitative relationship aimed to fairly challenge and encourage the trainees to take ownership of their future. The comments from the interviewees indicated that a mentor's role was to help the trainees figure out the way forward in their career, by probing and challenging, therefore allowing the trainees to go beyond their limitations. Eller et al. (2014) emphasise the importance of independence and collaboration. They found that students wanted the freedom to make mistakes and to be treated as part of the team, and mentors wanted to provide independence. A mentor is someone who can look ahead and know what is right for the trainee, the implication being that wisdom and good judgment are valued highly in mentors, which can only be gained by knowledge and experience.

Passion for the job and inspiration is important to trainees (Eller et. al 2014). Eller et al. (2014) found that from the mentees point of view it was important to see the mentor loves what he is doing, so that he transmits that to their mentee. The majority of participants agreed that coffee room conversations on a regular basis and general interest in trainees are essential. Tobin (2004) believes the bad mentor is selfish with time; as time given by a good mentor is immeasurable. This point was echoed by one of the participants who provided a personal example of 'bad mentoring' which they had been subjected to when training. This experience was instrumental in changing the course of their career. A systematic review of mentoring in academic medicine by Sambunjak et. al (2009) reported that mentorship was an important influence on personal development, career choice, and productivity, yet the poor quality of the studies reviewed did not allow conclusions to be made on the effect size of mentoring on any aspect of academic and professional development.

Most of the trainers were in favour of the mentee finding the mentor that suited their needs. This is supported by Sanfey et. al (2013), who say having clear goals and aims aids trainees to pick the mentor who can facilitate their progress through research, work-life balance, workplace politics and any other obstacles in their way. Some trainees may need more than one mentor, for example one who could help them navigate academia and research and another for clinical development.

A personal fit is important otherwise differences in values can undermine the relationship (Sanfey et al. 2013). The interviewees were equally in favour of mentees seeking mentors inside and outside their department. Internal mentors appear to satisfy mentees needs better than mentors who are in other organisational contexts. Mentors in the same department and speciality may have a better appreciation of the training needs, career development and the stresses the mentees might face. As one of the interviewees alluded, most issues and obstacles that trainees face are generic and not speciality specific, but from a practical point of view in a small speciality, such as orthodontics, there may not be the number of mentors required for every trainee; therefore some may need to look outside the speciality for specific mentoring requirements. Such pairings can bring another dimension and richness to the relationship, as well as establishing interdepartmental projects (Sanfey et al 2013).

Many successful mentoring relationships can start informally through relationships that evolve naturally over time toward mentoring commitments (Jackson et al. 2003). This was the preferred way for the trainers interviewed in this study. The chemistry which the participants mentioned, but were not fully able to explain, is based on perhaps the common interests and ideals that two people share in any given relationship, and mentoring is no exception. Jackson et al. (2003) found that this interpersonal aspect of the mentoring relationship is critical and can be problematic when mentors are assigned more formally to a particular trainee. This sentiment is in fact echoed by mentees themselves. In a study of mentor-mentee relationships, Straus et al. (2009) found that of the 21 mentees interviewed, all expressed concern that assigned mentorship could have a negative impact on the mentor–mentee relationship. Mentorship felt “forced” to some mentees when they were assigned a mentor, and they felt that a “forced relationship could lead to failure”.

Another problem which can hinder an effective mentoring relationship is when the mentor also has an assessor role for the mentee. This is supported by Mellon and Murdoch-Eaton (2015), who state that the supervisor's role as an assessor of performance can pose challenges and potential conflicts when providing support relating to other personal needs of trainees along their career paths. The mentor should not be someone with whom the mentee shares resources or is dependent on resources (Straus et al. 2009). The separation of mentoring and educational supervision as two distinct roles is important and relevant to

medical education (Garr and Dewe 2013). From their study of 21 training doctors from different health organisations in the North West of England, they recommended that the trainees should be introduced to the concept of mentoring and mentors, as a separate resource from the educational supervisor. Of course, as an educational supervisor it is possible to help the trainees enhance their CVs, provide guidance with audits and research, but essentially this relationship is very goal orientated and less about personal development and trust.

Ramani et al. (2006) believe that some mentees could become excessively dependent on their mentors for personal and professional support, which may become a drain on the mentor's energy. They stress that mentors should not be forced to take on roles in which they do not have expert skills. Equally, Feldman (1999), comments that this sense of dependency can hamper the trainees' abilities to function independently later in their careers. Trainees can become angry and frustrated that they are not receiving enough attention from their mentors, while mentors can become angry and frustrated by the lack of appreciation for their efforts. Proteges and mentors can betray each other's confidences, ``free-ride'' on the other's efforts or sabotage their partner's career through other destructive acts. This was certainly not an observation that we made from the interviews, however the necessity for boundaries was mentioned and one of the trainers commented that if an individual requires long term mentoring, possibly extending throughout their career, then the question should be asked as to whether they are in the correct speciality.

In a mentorship, the individuals can never be equal and therefore should not establish a relationship as friends. Doing so may result in complications, hurt feelings, and can be destructive. This is not to say that the mentoring relationship cannot be cordial, personal, enjoyable or fun. This simply means that the appropriate professional distance must be maintained to protect both (Ramani et al. 2006; Hunt and Michael 1983).

There are few studies that have explored the negative impacts of mentoring on the mentors. In our investigation none of the interviewees expressed any negative feelings towards their mentees or of the mentoring relationship. Eby et al. (2010) state that mentoring relationships are marked by substantial power differences. Mentors can do damage to mentees, both personally and professionally, by misusing their power over the

trainees. Inappropriately delegating tasks, undermining and diminishing their hard work can have detrimental effects on trainees. Admittedly, most researchers in the area acknowledge that, for mentoring to be most effective, mentors and proteges should share not only work interests but deep bonds of liking and trust (Levinson, 1978). This can be a challenge especially when the mentor and mentees are formally paired. It is hardly surprising that some individuals (mentors and mentees) are more likable and trustworthy than others and sometimes it is hard to create the personal chemistry that is so important to the mentoring relationship. For example, some mentors have high needs for autonomy and are not nurturing by nature, while some proteges may be fiercely independent and chafe under anyone's tutelage (Feldman 1999).

From all of the interviews it became apparent that not enough time and importance was given to mentoring by the institutions in which they worked. None wished for financial recognition, but all would have appreciated dedicated time in their job plans, and adequate training to support the trainees. According to Ramani et al. (2006) mentoring is a key activity in any educational institution and mentors should be allocated some degree of protected time to perform this important duty effectively. Just adding this duty to the existing workload is a recipe for poor mentoring relationships. This point was strongly expressed by all the participants in this study.

Taherian and Shekarchian (2008) explain that formal training for the mentor in mentoring techniques is highly desirable, if not an absolute pre-requisite. The training provided to prospective mentors in established mentoring schemes includes skills development with particular emphasis on active listening, non-directive facilitation of change and problem management techniques. It also usually encompasses activities such as mentoring skills in a variety of situations, including working with colleagues (sometimes co-mentoring) in clinical and managerial contexts, in educational supervision and in supporting people in difficulty. The idea is to provide prospective mentors with a greater insight into their strengths and development needs, and a greater understanding of their own and other people’s behaviour. Considering the organisational advantages of having a well informed and motivated workforce, it is to their benefit to encourage mentoring. Taherian and Shekarchian (2008) point out that mentoring allows problems to be dealt with early reducing the time spent by organisations dealing with problem doctors and referral to

regulatory bodies. Other benefits to the organisations are, increased insight into the thinking of students and faculty through creation of a feedback loop, developing future leaders for the institution and effective succession planning (Friedman et al 2004).

Limitations of the study

This study has a number of limitations. The most important limitation is that a small sample size was chosen in one single university faculty. This has the potential to negatively affect the Truth Value (i.e. trustworthiness), reliability and generalisability of the research. However, Malterud et al. (2016) propose the concept of information power. The larger information power the sample holds, the smaller the sample size needs to be. Information power is influenced by the aims of the study, sample specificity, quality and analysis of the interviews. They also state that to offer sufficient information power, a less extensive sample is needed with participants holding characteristics that are highly specific for the study aim. With this in mind the purposive sample of 6 participants with their years of experience in a well-established teaching institution seemed appropriate for the needs of this study. A study with strong and clear communication between researcher and participants requires fewer participants to offer sufficient information power than a study with ambiguous or unfocused dialogues (Malterud et al. 2016). Semi- structured interviews allowed us to take the most advantage of the small sample size by becoming more focused on the research questions.

Whilst the results of this study are very relevant to the training pathway of senior orthodontic trainees in the UK, which is mostly shared between dental hospital and district general hospitals, they may be more limited outside of this setting.

Conclusions

As Garmel (2004) explains, mentoring has become increasingly prominent on the medical education agenda. Most postgraduate deaneries, Royal Colleges, and NHS trusts mention mentoring in some context. From the mentors point of view, the gains of mentoring are: satisfaction from contributing to the mentee's development and pride in their success as

well as revitalised interest in the specialty and ability to share experience and knowledge (https://www.bma.org.uk/advice/career/progress-your-career/mentoring, 2004)

Mentoring can also strengthen the mentor's bond to the institution and raises their professional profile within that institution (Frei et al. 2010).

To our knowledge this is the first study that explores the views of orthodontic trainers on mentoring senior orthodontic trainees and in fact the first of its kind asking this question in any dental speciality in the UK.

This study found that despite limitations of job planning, environment and training all consultant trainers were dedicated to the concept of mentoring and still made time to be available for the trainees and provide guidance and support when needed. They had a good understanding of their role as a mentor and found it to be a positive experience.

Further studies are needed to explore the problems that mentors come across when faced with difficult mentees, how they juggle the demands to treat all the mentees equally, how and when they decide to terminate the mentoring relationship.

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